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This index covers all technical items - papers, correspondence, reviews, etc. - that appeared in this periodical during 1996, and items from previous years that were commented upon or corrected in 1996.

The Author Index contains the primary entry for each item, listed under the first author's name, and cross-references from all coauthors. The Subject Index contains several entries for each item under appropriate subject headings, and subject cross-references.

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Roychowdhury, V.P., D.B. Janes, S. Bandyopadhyay, and Xiaodong Wang. Collective computational activity in self-assembled arrays of quantum dots: a novel neuromorphic architecture for nanoelectronics; *T-ED Oct 96* 1688-1699
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Sasaki, H., M. Ono, T. Yoshitomi, T. Ohguro, S. Nakamura, M. Saito, and H. Iwai. 1.5 nm direct-tunneling gate oxide Si MOSFET's; *T-ED Aug 96* 1233-1242
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Shiba, T., Y. Tamaki, T. Onai, Y. Kiyota, T. Kure, and T. Nakamura. A very small bipolar transistor technology with sidewall polycide base electrode for ECL-CMOS LSIs; *T-ED Sep 96* 1357-1363
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Si homojunction bipolar transistors, 1/f noise and g-r noise. *Kiriania, A.K., +, T-ED May 96* 784-792
Si MOSFETs, interface-state generation, ensemble Monte Carlo simul. *Ellis-Monaghan, J.J., +, T-ED Jul 96* 1123-1132
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Si npn bipolar transistors, current gain degrad., reverse emitter-base bias stress. *Neugroschel, A., +, T-ED Aug 96* 1286-1290
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SiO_2, liq. phase deposited, MOS capacitor and a-Si:H TFT appls. *Jeng-Shiuh Chou, +, T-ED Apr 96* 599-604
SiO_2 thin films, HV stressing, trap generation. *Scott, R.S., +, T-ED Jul 96* 1133-1143
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SOI insulated-gate p-n jn. devices, 2D confined injection phenom. *Omura, Y., T-ED Mar 96* 436-443
SOI PMOS devices, fully-depleted, short-channel effect threshold voltage model. *Shiao-Shien Chen, +, T-ED Sep 96* 1387-1393
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SrS:Ce thin-film EL devices, charge transfer and light emission simul. *Neyts, K., T-ED Sep 96* 1343-1350

Charge transfer devices; cf. Charge injection devices

Charge transfer image sensors; cf. Charge coupled image sensors

Chemical vapor deposition; cf. CVD

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CID; cf. Charge injection devices

Circuit design; cf. Logic design

Circuit modeling; cf. Integrated circuit modeling

Circuit noise; cf. Amplifier noise; Integrated circuit noise

Circuit optimization
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Si/SiGe heterostruct. CMOS transistors, planar design. *Sadek, A., +, T-ED Aug 96* 1224-1232

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Circuits; cf. Amplifiers; Distributed parameter circuits; Equivalent circuits; Integrated circuits; Multiplying circuits; Phase shifters; Rectifiers; Thyristor circuits

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Circuit testing; cf. Integrated circuit testing

CMOS analog integrated circuits; cf. BiCMOS analog integrated circuits; CMOSFET amplifiers

CMOS digital integrated circuits
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CMOS digital integrated circuits; cf. CMOS memory integrated circuits

CMOSFET amplifiers
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CMOSFET logic devices
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CMOS mixed-sig. ULSI, analog hot-carrier immunity, LATID technol. *Ji Zhao, +, T-ED Jun 96* 954-957
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SiGe deep submicron CMOS, heterojunction MOSFETs, 2D computer simul. *O'Neill, A.G.*, + , *T-ED Jun 96* 911-918

SiO_2 ultra-thin gate oxide layers, soft breakdown. *Depas, M.*, + , *T-ED Sep 96* 1499-1504

Si/SiGe heterostruct. CMOS transistors, planar design. *Sadek, A.*, + , *T-ED Aug 96* 1224-1232

SOI MOSFET, current drive enhancement, high-permitt. gate insulator. *Shimada, H.*, + , *T-ED Mar 96* 431-435

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CMOS memory integrated circuits

NVG, NOR virtual ground flash memory, LV 3 V/5 V technol. *Bergemont, A.*, + , *T-ED Sep 96* 1510-1517

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Converters; cf. Frequency conversion

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LOCOS isolated structs., post-oxidation cooling rate effect on residual stress and PN-jn. leakage current. *Smeys, P.*, + , *T-ED Nov 96* 1989-1993

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AlGeCu multilevel damascene proc., low-temp. reflow sputtering, CMP. *Kikuta, K.*, + , *T-ED May 96* 739-745

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Crossed field devices; cf. Magnetrons

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GaAs MESFETs and p-HEMTs, microwave perform., temp. depend. *Feng, M.*, + , *T-ED Jun 96* 852-860

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Crystals; cf. Piezoelectric materials/devices

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LOCOS isolated structs., post-oxidation cooling rate effect on residual stress and PN-jn. leakage current. *Smeys, P.*, + , *T-ED Nov 96* 1989-1993

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SiO_2 ultra-thin gate oxide layers, soft breakdown. *Depas, M.*, + , *T-ED Sep 96* 1499-1504

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GaAs multi-δ-doped FET, electron transfer charact. *Ming-Jer Kao*, + , *T-ED Aug 96* 1181-1186

FETs; cf. FET integrated circuits; JFETs; MESFETs; Microwave FETs; MODFETs; Submillimeter wave FETs

FET switches
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FET switches; cf. Power FET switches

Field effect transistors; cf. FETs

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Frequency conversion; cf. Mixers; Submillimeter wave frequency conversion

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GaAs power MESFET, 2.3 V drain bias, 68% PAE, low distortion appls. *Jong-Lam Lee*, + , *T-ED Apr 96* 519-526
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InAlAs/InGaAs HBT MMIC oscillators, opt. control. *Freeman, P.*, + , *T-ED Mar 96* 373-379
InAlAs-InGaAs p-n-p HBT, simul. *Shi, S.*, + , *T-ED Sep 96* 1466-1467

InGaAs:Be/InAlAs HBTs, current-induced degrad., base-emitter spacer layers. *Kaiyan Zhang, + , T-ED Jan 96* 8-14
InP-based single HBTs, HSPICE model. *Yang, K., + , T-ED Sep 96* 1470-1472
InP/GaInAs HBT, heavily doped base, magnetotransport. *Betser, Y., + , T-ED Aug 96* 1187-1192
InP HBTs, thermal instabilities. *Liu, W., + , T-ED Mar 96* 388-395
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SiGe-base HBTs, optim. *Hueting, R.J.E., + , T-ED Sep 96* 1518-1524
Si/SiGe double mesa HBTs, oxide planarization. *Schreiber, H.-U., T-ED Jun 96* 1036-1037
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$CuInSe_2/CdS$ solar cells, graded bandgap, computer simul./modeling. *Dhingra, A., + , T-ED Apr 96* 613-621
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GaInP/InGaAs/GaAs graded barrier MODFET, OMVPE grown, charcts. *Pereiaslavets, B., + , T-ED Oct 96* 1659-1664
InAlAs/InGaAs HBT MMIC oscillators, opt. control. *Freeman, P., + , T-ED Mar 96* 373-379
InAlAs-InGaAs p-n-p HBT, simul. *Shi, S., + , T-ED Sep 96* 1466-1467
InAlAs/InP recessed-gate heterostruct. mm-wave power transistors, source/drain resist. *Greenberg, D.R., + , T-ED Aug 96* 1304-1306
InGaAs:Be/InAlAs HBTs, current-induced degrad., base-emitter spacer layers. *Kaiyan Zhang, + , T-ED Jan 96* 8-14
InGaAs/InAlAs metal-semicond. Schottky diode struct., transient response, hot carrier effect. *Salem, A.F., + , T-ED Apr 96* 664-665
InGaAs MSM photodetectors on Si substrs., dark current anal. *Wehmann, H.-H., + , T-ED Sep 96* 1505-1509
InP-based enhancement-mode HEMTs, non-alloyed ohmic contacts. *Chen, K.J., + , T-ED Feb 96* 252-257
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$In_xGa_{1-x}As/InAlAs/InP$ strained heterostruct. for HEMT appl. *Drouot, V., + , T-ED Sep 96* 1326-1335
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LF noise sources in InAlAs/InGaAs MODFETs. *Viktorovitch, P., + , T-ED Dec 96* 2085-2100
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AlInAs/InGaAs low noise HEMT, selective wet gate recess etching. *Yoshida, N., +, T-ED Jan 96* 178-180
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GaAs/AlGaAs HEMTs fabricated by X-ray lithog., charact. meas. *Lafontaine, H., +, T-ED Jan 96* 175-178
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GaAs MESFETs and ccts. transplanted by epitaxial lift off, noise study. *Morf, T.*, + , *T-ED Sep 96* 1489-1494
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Semiconductor device reliability; cf. Integrated circuit reliability

Semiconductor devices
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TFT characts., effect of fab., excimer laser annealing. *Noguchi, T.*, + , *T-ED Sep 96* 1454-1458
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LOCOS isolated structs., post-oxidation cooling rate effect on residual stress and PN-jn. leakage current. *Smeys, P.*, + , *T-ED Nov 96* 1989-1993
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Semiconductor diode switches
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BiCMOS LNA, 2 GHz, low-power, ultra-low capacitance proc. *van der Wel, W., + , T-ED Sep 96* 1539-1546
UHF power FETs
GaAs power MESFET, 2.3 V drain bias, 68% PAE, low distortion appls. *Jong-Lam Lee, + , T-ED Apr 96* 519-526
Ultra-large-scale integration
AlGeCu multilevel damascene proc., low-temp. reflow sputtering, CMP. *Kikuta, K., + , T-ED May 96* 739-745
B penetration through O_2- and N_2O-grown gate oxides, thickness depend. *Krisch, K.S., + , T-ED Jun 96* 982-990
CMOS mixed-sig. ULSI, analog hot-carrier immunity, LATID technol. *Ji Zhao, + , T-ED Jun 96* 954-957
ECL-CMOS LSI, small bipolar transistor technol. *Shiba, T., + , T-ED Sep 96* 1357-1363
low-resist. poly-metal gate electrode durable for high-temp. proc. *Akasaka, Y., + , T-ED Nov 96* 1864-1869
self-aligned counter-doped well proc. for low jn. capacitance CMOS. *Nakamura, H., + , T-ED Jul 96* 1099-1103
SiGe deep submicron CMOS, heterojunction MOSFETs, 2D computer simul. *O'Neill, A.G., + , T-ED Jun 96* 911-918
SiO_2 ultra-thin gate oxide layers, soft breakdown. *Depas, M., + , T-ED Sep 96* 1499-1504
submicron CMOS VLSI/ULSI, complementary-LVTSCR ESD protection cct. *Ming-Dou Ker, + , T-ED Apr 96* 588-598
Ultraviolet detectors
a-Si:H/a-SiC:H solar-blind UV photodetectors, large area appls. *Caputo, D., + , T-ED Sep 96* 1351-1356

V

Vapor deposition; cf. CVD
Varactors
BiCMOS technol. integrated RF and microwave components. *Burghartz, J.N., + , T-ED Sep 96* 1559-1570
Variational methods
HDTV color picture tubes, mag. deflection systs., unified aberration theory. *Jiye Ximen, + , T-ED Aug 96* 1297-1303
homog. mag. deflection syst., electron opt. aberration calcs. *Jiye Ximen, + , T-ED Mar 96* 501-508
Very-high-speed integrated circuits
ECL-CMOS LSI, small bipolar transistor technol. *Shiba, T., + , T-ED Sep 96* 1357-1363
Very-large-scale integration
BiCMOS technol. integrated RF and microwave components. *Burghartz, J.N., + , T-ED Sep 96* 1559-1570
CMOS submicron technols., gate electrode discontinuities, impedance meas. appl. *Jenkins, K.A., + , T-ED May 96* 759-765
interconnects, electromigration behavior, unidirectional time-depend. stress. *Dwyer, V.M., T-ED Jun 96* 877-882
MOS nonvolatile flash memory devices, ONO interpoly dielec., thickness scaling limitation. *Mori, S., + , T-ED Jan 96* 47-53
Neuron MOS transistor, VLSI design. *Weber, W., + , T-ED Oct 96* 1700-1708
Si deep submicron devices, LOCOS scalable isolation technol. *Kobayashi, T., + , T-ED Feb 96* 311-317
Si VLSI-compatible high-speed p-i-n photodetector for opt. data link appls. *Ghioni, M., + , T-ED Jul 96* 1054-1060

submicron CMOS VLSI/ULSI, complementary-LVTSCR ESD protection cct. *Ming-Dou Ker, + , T-ED Apr 96* 588-598
Voltage breakdown; cf. Dielectric breakdown

W

Wave diffraction; cf. Diffraction
Waveguide components
space harmonic peniotron in magnetron waveguide resonator. *Ishihara, T., + , T-ED May 96* 827-833
Waveguides; cf. Dielectric loaded waveguides; Optical waveguides; Rectangular waveguides
White noise
D front end transistor width for min. pixel noise. *Fasoli, L., + , T-ED Jul 96* 1073-1076
Wiring
AlGeCu multilevel damascene proc., low-temp. reflow sputtering, CMP. *Kikuta, K., + , T-ED May 96* 739-745

X

X-ray effects
SOI p-MOSFET, fully-depleted ultra-thin, BOX degrad. *Hua-Fang Wei, + , T-ED Aug 96* 1200-1205
X-ray measurements
AlGaAs/InGaAs p-HEMT, proc. damage, synchrotron X-ray topographic anal. *McNally, P.J., + , T-ED Jul 96* 1085-1091
X-rays
Si, strained layer, high-mobility PMOSFET, GSMBE growth. *Nayak, D.K., + , T-ED Oct 96* 1709-1716